

REMARKS

Applicants appreciate the thorough review of the present application reflected in the Official Actions dated June 27, 2005 and May 26, 2006. Applicants have amended the claims of the present application to put the application in form for allowance. In particular, Applicants have (1) amended Claims 2, 6-7, 12 and 54-55 to address the various informalities identified in the May 26, 2006 Official Action, (2) rewritten Claim 6 into independent form, (3) cancelled Claims 1 and 5, (4) amended the remaining claims to depend from Claim 6 and (5) added a new Claim 56, which is drawn to the elected invention/species. As discussed herein, the subject matter of Claim 6 (the sole remaining independent claim) is not taught or suggested by the references cited in the Official Action, either alone or in combination, and hence Applicants respectfully submit that the application is now in condition for allowance.

I. Interview Summary

Applicants' representative telephoned Examiner Chen on July 31, 2006 to request reconsideration of the non-entry of Applicants' Amendment After Final based on the amendment to Claim 6 raising new issues. Applicants' representative explained that the only amendments made to Claim 6 were to rewrite Claim 6 into independent form and to amend the claims as required in the Office Action to address the informality objections and the rejections under 35 U.S.C. § 112. Examiner Chan indicated that he would review the matter and call Applicants' representative back. Examiner Chen left a message the following day indicating that non-entry of the Amendment After Final would be maintained.

II. Claim 6 is Patentable Over the Cited Art

As noted above, Claim 6 has been rewritten into independent form, and has been amended to address the informalities identified in the May 26, 2006 Official Action. Claim 6 stands rejected in the May 26, 2006 Official Action as obvious under 35 U.S.C. § 103(a) over U.S. Patent No. 4,818,715 to Chao ("Chao") in view of U.S. Patent No. 6,436,776 to Nakayama et al. ("Nakayama"). (Official Action at 10-11). In particular, the Official Action states that Chao, at Figs. 5e, 5h and 7d, discloses all of the recitations of Claims 1 and 5 (which Claim 6 depended from before it was rewritten into independent form), and that

Nakayama discloses the recitations of Claim 6 that are missing from Chao. (Official Action at 4-5 and 10). The Official Action further states that it would have been obvious to a person of ordinary skill in the art to add the alleged features from Nakayama to the device of Chao "in order to eliminate short circuit (i.e., bridging phenomenon etc.), reduce parasitic capacitance generated between the gate electrode and the source/drain region." Applicants respectfully submit, however, that even were Chao and Nakayama properly combinable, which they are not, the combination would not disclose the subject matter of Claim 6. Accordingly, for the reasons discussed below, Applicants respectfully request withdrawal of the pending rejections.

In particular, the Official Action cites to Figs. 5e and 7d of Chao as disclosing an inverted T-shaped gate electrode having a silicon base portion and a silicon column portion. (Official Action at 4). However, the structure of Figs. 5e and 7d of Chao is an intermediate structure. In particular, as shown in Fig. 5f and discussed at Col. 9, lines 17-20 and Col. 10, lines 24-29 of Chao, the side portions of the structures in Chao that are identified as inverted T-shaped gate electrodes are oxidized so that they are converted into polysilicon dioxide spacers. As such, the finished products of Chao unquestionably do not include inverted T-shaped gate electrodes as shown, for example, in Fig. 5i of Chao.

Therefore, even assuming, for the sake of argument, that one of skill in the art would have been motivated to modify the devices of Chao based on Nakayama, it is clear that the combination would not disclose the subject matter of Claim 6. Instead, to the extent that the alleged curing thermal oxide layer and alleged insulating spacer of Nakayama were added to the device of Chao, they would be added to the final structure of Chao, as opposed to an intermediate structure, and hence the resulting structure would not include an inverted T-shaped gate electrode. In fact, the devices of Figs. 5e and 7d of Chao could not be modified in the manner suggested in the Official Action, as the addition of a curing thermal oxide layer before oxidation of the gate electrode would inhibit the ability to carry out the oxidation of the gate electrode taught by Chao. As such, Applicants respectfully submit that the combination of Chao and Nakayama do not render Claim 6 obvious.

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III. Other Comments

Applicants have amended the claims to address each of the informalities identified on page 2 of the Official Action. (Official Action at 2). Applicants have also amended Claims 2, 6 and 7 to correct the antecedent basis issues identified on page 3 of the Official Action in the section addressing rejections under 35 U.S.C. § 112. Finally, Applicants have amended the dependencies of Claims 2-4, 9-12 and 54-55 to depend from Claim 6. In light of these amendments, Applicants respectfully submit that this application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



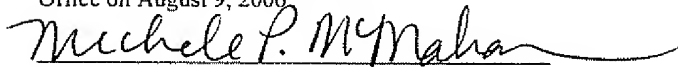
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